Unit 5, Video 13: Mole Ratios and Stoichiometry

1. What information is needed to switch substances within a chemical reaction?

2. The _____ in a balanced chemical equation provide the numbers for a mole ratio.

3. Answer each of the following questions. Be sure to show your work including the conversion factors necessary to solve each problem.

   C_3H_8 + 5 O_2 → 4 H_2O + 3 CO_2

   a. Using the chemical equation shown above, how many grams of CO_2 can be produced when 8.45 grams of C_3H_8 are consumed?

   b. Using the chemical equation shown above, how many grams of CO_2 can be produced when 8.45 grams of C_3H_8 are consumed?

4. For both of the examples in question 3, circle the mole ratio.

5. True or False: It is acceptable to switch substances in the grams to mole step of a stoichiometry problem.

6. True or False: The only time you can switch substances within a balanced chemical equation is when using a mole to mole conversion factor (or mole ratio).